

38. (Unchanged) The inflatable cover of Claim 37, wherein the inflatable structure is a self-erecting structure.

39. (Unchanged) The inflatable cover of Claim 38, the base sheet further including an upper layer of a flexible material attached to the fibrous under layer.

### **REMARKS**

By this paper, Claims 20-33, 34, and 35-39 remain in the application, unamended.

This paper is submitted to respond to new issues raised in the Final Action and to ensure a complete response to all of the issues raised in the course of examination in this patent application in order to prepare the record for appeal, if necessary.

The rejection of Claims 20-22 and 34 for anticipation by Roehr has been maintained "for the reasons set forth in the previous action." In fact, the rejections of Claims 20-22 and 34 for anticipation over Roehr extend through the course of examination as follows: the Final Action dated 9/11/00; the Office Action dated 2/14/00; the Office Action dated 10/25/99; the Office Action 6/23/98; and the Office Action dated 12/08/97. The applicant reserves for presentation on appeal the arguments and facts responsive to those rejections in the amendments filed by the applicant on 4/3/98; 9/23/98; 1/25/00; and 6/14/00. Further, the applicant submits that the specific orientation of layers of the base sheet with respect to each other and to the overlaying material sheet that is recited in the rejected claims is not inherent in Roehr. The Examiner disagrees, as the record clearly sets forth. Nevertheless, in support of the contention that the specific orientation of the layers of the base sheet with respect to each other and to the overlaying material sheet is supported by Roehr, it was stated in the Final Action:

"Applicant's next argument is non-sensical. The examiner's position regarding the location of the fabric layer in Roehr is consistent. Whether stated as located where it touch the patient or stated on the outside of the foil where it will not interfere with the plastic welds the location is the same. The only confusion appears to be on the part of the applicant. If such confusion remains the applicant is urged to contact the examiner for clarification." (Final Action, 09/11/00, P. 3.).

There certainly is confusion with respect to the components of either of Roehr's layers which consist of "weldable plastic foil or a fabric lined with plastic foil . . . ". However, the confusion has not been introduced by the applicant; it results, instead, from the non-specificity of Roehr's disclosure. In the Final Action, Moore (U.S. Patent No. 4,114,620) has been introduced to support the Examiner's position "regarding the meaning of lined laminated plastic

foil structures as known in the art." It is submitted that Moore does not teach "lined laminated plastic foil structures . . . ". Instead, Moore teaches a heavy duty patient treatment pad which is constructed in order to "bear the full weight of the patient as he shifts his weight and moves about on the pad . . . " (Moore, C. 1, ll. 23-25). Moore particularly distinguishes smaller, more delicate structures at C. 1, ll. 25-30.

No matter which side of Moore's device is designated as a "base sheet" it is manifest that is not one which would include "a plurality of apertures opening through the base sheet", since the device is a pad for circulating water. Apertures would result in a one-way flow of water through the pad from a source onto a person. Clearly, Moore did not contemplate this.

With respect to the observation in the Final Action in the paragraph beginning at the bottom of page 3 and extending to the top of page 4, the "greater degree of comfort that a fibrous layer provides for patient" is held to be "knowledge generally available to one of ordinary skill in the art." This is beside the point. Reference to the specification at page 8, line 23 - page 9, line 8, together with evidence introduced into patent application serial no. 08/386,324 (Declaration R. Andreas Diebol, and accompanying video tape) establish that the orientation of the respective layers or strata of the base sheet are relevant to the method by which the overlaying sheet can be quickly and effectively attached to the base sheet to support mass manufacturing, and not to comfort. For the Examiner's convenience, a copy of the Diebol declaration is submitted herewith; the video that accompanies that declaration is the file of the '324 application, which well known and available to the examiner.


In the first full paragraph on page 4 of the Final Action the Examiner questions the applicants arguments concerning the tubular structure of Augustine '188. The applicant apologizes for the lack of clarity. The point to be made was that the air flow cover of Augustine '188 is "made up of a plurality of parallel elongate plastic tubes, two of which are indicated by 15 and 16, interconnected to form an inflatable casing." These tubes are "joined together by an intermittent longitudinal seam 18." (See Augustine '188 at C. 3, ll. 16-35.). In other words, the tubes are made and then joined together to form an inflatable structure. In contrast, the inflatable structure of this application is made by joining an overlaying sheet by sealing to the upper surface of a laminated base sheet "near the periphery of the cover to form an inflatable structure comprising the overlaying sheet and the base sheet . . . ". Accordingly, the point made was that the structure of Roehr's device which utilizes fabric lined plastic is so different from the Augustine '188 airflow cover in which parallel tubes are constructed and then joined, that the

combination of Augustine '188 with Roehr failed to teach all elements of an inflatable structure as recited in Claims 32 and 33.

Next, in the second full paragraph on page 4 of the Final Action, the Examiner states that "Hardy's devices clearly inflatable." The applicant respectfully disagrees and requests the Examiner reference to any passage in Hardy that establishes this fact. The paragraph goes on to say that, nevertheless, "this is not the point of rejection. Hardy has been cited to show that it is known in the art to provide a recess in the *blanket* head portion. Such a recess is by definition non-inflatable. It would have been obvious to have provided such a recess in Roehr's blanket as well to accommodate the head." (*Italics added for emphasis*). In addition to the arguments already presented traversing this rejection, it is noted that the inflatable cover of Claims 35 and 36 includes "a non-inflatable portion defining a recess near a first end of the inflatable structure . . ." (Claim 35) where "the non-inflatable recess is defined by a seal near the head end that seals the upper sheet to the base sheet at the head end." (Claim 36) Hardy's device is a bunting that is meant to hold, contain, and/or completely enclose an infant, much like a papoose. It is not a blanket; it is not inflatable; it is not an "inflatable cover"; it does not have an "inflatable structure". Roehr is not shown in deployment with respect to a person, and so it cannot be said there is any suggestion to modify Roehr by provision of a Hardy viewing recess, inflatable or non-inflatable.

It is believed that this application is now in condition for allowance and reconsideration is earnestly solicited.

Respectfully submitted,

  
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Date: December 11, 2000

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

SCOTT D. AUGUSTINE, ET AL.

Serial No.: 08/386,324

Filed: February 10, 1995

For: THERMAL BLANKET

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) Group No.: 3304  
)  
) Examiner: M. Graham  
)  
)  
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Honorable Commissioner of  
Patents and Trademarks  
Washington, D.C. 20231

Dear Sir:

**DECLARATION OF R. ANDREAS DEIBEL  
UNDER 37 CFR 1.132**

I, R. ANDREAS DEIBEL, a citizen of the United States, residing in Minneapolis, Minnesota, declare as follows:

1. that I have held the position of automation engineering manager for AUGUSTINE MEDICAL, INC., since 1994, and that from 1990-1994, I held the position of automation design engineer for AUGUSTINE MEDICAL, INC.;

2. that I am familiar with the identified U.S. patent application and with the structure and manufacture of inflatable thermal blankets of the type disclosed and claimed in the identified U.S. patent application;

3. that, as automation engineering manager, I am responsible for designing, maintaining, and overseeing the operation of automated production equipment that is used to manufacture inflatable thermal blankets of the type disclosed and claimed in the identified U.S. patent application;

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4. that as shown in the attached video, Exhibit "H", difficulties are encountered in heat sealing two plastic sheets to form inflatable thermal blankets due to melting and adherence of the plastic to heat rollers in the automated production equipment. Lower temperature on the heat rollers would not solve the problem since the temperature at which bonding occurs is also the temperature at which the adherence begins. Other bonding techniques, such as RF sealing and ultrasonic sealing, are cost prohibitive due to the high equipment costs. The use of thicker plastic is not feasible since the thickness required to overcome the sticking problem would result in a thermal blanket that is too bulky, thick and expensive to be commercially feasible. I know of no other method by which these two plastic sheets can be heat sealed quickly, easily and cheaply other than by incorporating the fibrous base sheet of the present invention;

5. that the laminated structure of the thermal blanket described and claimed in this U.S. patent application solves these problems as follows. The structure of the base sheet having a first layer of a base sheet material (a four mil thick layer of fibrous material) and a second layer of a second base sheet material (a one-half mil thick sheet of polypropylene) laminated together makes feasible the automated manufacturing of this blanket. This is because the first layer of material provides a base on which the bonding of the overlaying flexible material sheet (another one-half mil thick sheet of polypropylene) to the second base sheet can be supported during bonding without requiring the heat source to directly contact either of the two plastic sheets. That is, the heat source makes contact only with the fibrous layer which conducts heat to the plastic layers without itself being affected. This permits the plastic sheets to bond. Furthermore, the bottom fibrous layer provides a stiff support layer which facilitates registration and handling of the various sheets of the

thermal blanket in the automated thermal blanket production line without stretching, wrinkling and other difficulties in the manufacturing process;

6. that I conclude that the above-described structure of the thermal blanket of the invention described in this U.S. patent application makes the inexpensive, simple, and economical manufacturing of these inflatable thermal blankets feasible; and

7. that I have inspected the inflatable thermal blankets manufactured and sold by Mallinckrodt and Progressive Dynamics, marked as Exhibits A and C, and I have found that each includes a base sheet having a laminate structure in which a first fibrous material layer has laminated to it a second layer of plastic material. The base sheet includes numerous openings. An overlaying sheet is attached to the layer of plastic material at a number of locations. The overlaying material sheet is sealed to the layer of plastic material within the periphery of the inflatable thermal blanket, and an opening is provided for directing warmed air into the blanket.

8. As the person signing below I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and, further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dated: March 7, 1996

R. Andreas Deibel  
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